

Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraphs [0023], [0034] and [0036], with the following rewritten paragraph:

[0023] In an alternative embodiment, receiver 51 may be a tuned wideband receiver capable of receiving signals over a predetermined bandwidth, for example, at least 2 MHz. In one embodiment, the RF detector may have a 10 MHz range. The actual frequency values defining the range of the tuned wideband receiver or detector may be varied over the entire RF frequency range until a signal is detected. FIG. 3B shows a circuit diagram of an exemplary tuned wideband receiver or detector 304. An inductor 314 functions as an antenna. A capacitor 316 together with inductor 314 determines a resonant frequency of the receiver. At resonance receiver 304 will be the most sensitive. The resonant frequency may be fixed, tuned or variable. A fixed capacitor 316 provides a fixed resonant frequency. If capacitor 316 is a tunable type, for example, a varactor diode, receiver 304 may be used to sweep across the frequency band or wait at a particular frequency. A resistor 318 may be an actual component or element or may be a result of the practical resistance (or loss) in the ~~inductor~~ inductor 314 and capacitor 316. Resistor 318 (or loss) may be controlled to select a bandwidth of the circuit. A capacitor ~~322~~ 322, after a diode 320, serves as a low pass filter that filters out the RF carrier and leaves the baseband data or modulation. An amplifier 324 may be used to increase the signal for use by a control circuit or processor. As mentioned previously, wideband receiver 51 may acquire data, such as the control code, of the control signal but the frequency of the control signal is left undetermined. In other words, the exact RF carrier frequency of the remote transmitter does not need to be known or learned at the same time as the control code (i.e., when the RF control signal is received by the receiver). Transceiver 50 is also capable of transmitting learned RF control signals via antenna 58 and transmitter 53.

[0034] Oscillator 404 is also coupled to the RF detector (or ~~[[tuned]]~~ tuned receiver) 400. A frequency of oscillator 404 may be controlled using control circuit 452. The oscillator may be used in combination with control circuit 452 and RF detector 400 to determine the resonant frequency of RF detector 400. Oscillator 404 may be used to test the frequency RF pickup loop 406 is tuned to. RF detector 400 is held at its previous control voltage and a signal from the oscillator 404 is applied to an antenna by closing a switch 410 between the oscillator 404 and RF detector 400. The frequency of oscillator 404 is then varied until the maximum signal in the RF detector 400 is produced. The frequency of the oscillator when the maximum RF detector 400 signal is produced corresponds to the tuned receiver resonant frequency. The identified frequency of RF detector 400 may be stored with the control code of the control signal by control circuit 452. To retransmit the control signal, oscillator 404 is set to the frequency stored in memory for a particular control signal and the associated control code is used to modulate the transmission signal.

[0036] FIG. 5 illustrates a method for a learning process for a trainable transceiver in accordance with an embodiment. At block 502, the training process is initiated. The training process may be initiated by, for example, actuating one of the push buttons 42, 44, and 46 (FIG. 2), a combination of key presses, selecting a menu item on a display or may be initiated when a signal is received by the transceiver. Alternatively, if the trainable transceiver is mounted in a vehicle, the training sequence may be initiated by a message on a vehicle bus. At block 504, a remote transmitter 60 (to which the transceiver 50 is to be trained) is activated to send an RF control signal. The RF control signal may include, for example, a fixed control code or a rolling control code ~~[[an]]~~ and has a set of data characteristics. Receiver 51 receives the RF control signal transmitted by the remote transmitter 60 via antenna 59 at block 506. Receiver 51 may be a broadband/wide-range receiver that is capable of receiving signals over a wide range of frequencies or a tuned wideband RF receiver or detector that is capable of receiving signals over a predetermined range, for example, at least 2 MHz. Accordingly, the exact RF carrier frequency of the remote transmitter control signal does not need to be known or learned at the same time as the control code (i.e., when the RF control signal is received by the receiver).